A process for delivering a complex to a cell, comprising:

a) forming the complex having a net charge comprising a nucleic acid and a polymer in a solution;

b) attaching a charged polymer to the complex in sufficient amount to change the net charge;

c) delivering the complex to the cell, *in vitro*; and,

d) expressing the nucleic acid.

REMARKS

Rejection of claims under the first paragraph of 35 U.S.C. 112:

Claims 1-18 have been rejected under §112. Independent claims 1, 8 and 15 have been amended to reduce the scope of the claims. The delivered complex has been amended to comprise a nucleic acid rather than a polyion. Expression of the nucleic acid has also been added to claims 1 and 15. The amendment is believed to overcome the rejection regarding delivery of polyions.

On page 4, the Action states that the specification fails to assert any useful purpose for the claimed process, *in vivo*. Applicants respectfully disagree.

In the specification, page 1, lines 18-20, Applicants state that their processes may be used in gene therapy development. As further explanation, there are many public and private entities that are involved in developing methods of delivering nucleic acids to cells, *in vivo* for expressing proteins or providing antisense material to cells. The desired proteins may be therapeutic or may be harvested for external use. The entities include companies which are commercial entities created to make products for customers to purchase. Unfortunately, many of the processes required to produce final products in most technical fields cannot be efficiently developed by one company alone and may take many years to complete. Biotechnology scientists and companies specialize in specific areas. Therefore, a single company usually utilizes the technology from many different sources such as scientists and corporations specializing in various stages of a desired final product. One company will purchase compounds and processes developed by others that fit into its needs and is likely to be successful in furthering development. A finished process of one company might be an interim process for another company which will purchase the commercial process for use in the development of their own final product. It would be improper to suggest that only the final product of this lengthy commercial process may be patented.

Applicants have provided processes that will not require undue experimentation to the many commercial entities that require methods to deliver nucleic acids to cells for *in vivo* expression to further the development of their final products and processes. Applicants have not disclosed specific examples of therapy for treating a disease but have provided a commercially desirable process of *in vivo* recharged gene delivery providing expression that will be purchased and used by others to reach final consumer product goals.

On page 6, the Office Action points out that DS (Dextran Sulfate) is not referred to in Table 1. Applicants regretfully report that the DS should be polyacrylic acid in this specification and it has been amended to incorporate the change. The substitution of polyacrylic acid is not new matter and support may be found in the specification on page 25, line 12. Additionally, PAA has mistakenly been defined on page 22, line 26 as poly-L-aspartic acid. In table 1, PAA is intended to mean polyacrylic acid.

However, Applicants provided a DNA/PEI/DS example (Example 6) in the provisional application to which the present application is related.

Rejection of claims under the first paragraph of 35 U.S.C. 112:

Claims 1-7 and 12 are rejected under §112, second paragraph.

Claim 1 has been amended to include a delivery step.

Claims 5 and 12 have been amended to depend from the appropriate claim.

Rejection of claims under 35 U.S.C. 102:

Claims 8 and 11 are rejected under §102(b) as being anticipated by Nicolau et al. Applicants have amended claim 8 to obviate the rejection.

Claim 8 has been amended to recite attaching a charged polymer to change the net charge. The Nicolau et al. reference discloses a liposome layer surrounding a charged polymer. The two compounds are not in complex and, as stated in the Office Action, the net charge is not changed. In contrast, Applicants have formed a complex between the nucleic acid and the polymer. Additionally, Applicants net charge is changed by the charged polymer.

The rejection to claim 8 is believed to be overcome. Claim 11 has been deleted.

Rejection of claims under 35 U.S.C. 103:

Claims 8-11 are rejected under §103(a) as being obvious in view of Nicolau et al. et al. along with Vitiello et al. Applicants have amended independent claim 8 to overcome the rejection.

Applicants have amended claim 8 to obviate the rejection since the cited prior art does not show charge reversal. Claim 10 depend from claim 8 and is also believed to be in condition for allowance. Claims 9 and 11 have been cancelled.

Applicants believe that they have overcome the §103 rejections by reason of the claim amendments.

§132 Declaration:

Applicants have submitted with this Response a §132 Declaration containing another example of *in vivo* delivery and expression of a nucleic acid to hepatocytes.

The Examiner's objections and rejections are now believed to be overcome by this response to the Office Action. In view of Applicants' amendments and discussion, it is submitted that claims 1-8, 10, 12-18 should be in condition for allowance and Applicants respectfully request an early notice to such effect.

Respectfully submitted,

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